

## **REMARKS**

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

### **I. CLAIM STATUS**

Claims 1, 5, 7, and 9-10 were pending in this application when last examined.

Claims 2, 4, 6, and 8 stood cancelled without prejudice or disclaimer thereto.

Claims 1, 5, 7, and 9-10 were examined on the merits and stand rejected.

### **II. REJECTION UNDER 35 USC 103(a)**

On pages 2-5 of the Office Action, claims 1, 5, 7, and 9-10 are newly rejected under 35 USC 103(a) as being unpatentable over Kittlemann et al. (USPN 5,334,514) in view of Prieto et al. (USPN 5,945,314).

Applicants respectfully traverse this rejection as applied to the amended claims.

In the claimed method, *divalent ion is added after completion of the catalytic reaction by CMP-NeuAc synthase*. The ion is added **not** to subserve the catalytic reaction by CMP-NeuAc synthase, but to remove the contaminant (e.g., phosphoric acids, pyrophosphoric acids, and nucleotides) remaining in the solution of the catalytic reaction.

In contrast, according to the descriptions in columns 3 and 4 in Kittlemann et al. cited by the Examiner, divalent ion in this reference is added into a reaction solution of CMP-NeuAc synthesis, *apparently to subserve the catalytic reaction by CMP-NeuAc synthase*. Hence, Kittlemann et al. does not teach or suggest the step (1) of the claimed method.

Further, Kittlemann et al. does not teach or suggest the step (3) as claimed, i.e., a step of adding an ethanol to precipitate CMP-NeuAc, nor disclose the process comprising the steps (1) to (4) performed in the specific sequence as claimed. The process disclosed in Kittlemann et al. is clearly discriminated from the claimed method.

Prieto et al. only disclose some species of alcohol.

Accordingly, even combining Kittlemann et al. with Prieto et al., there is no teaching or suggestion of the claimed method.

During the Interview of June 8, 2011, the Examiner referred to the description in column 4, lines 40-44 of Kittlemann et al. and alleged that the description suggests using manganese ion in the claimed method.

However, Applicants respectfully submit that the Examiner's allegation appears to be not relevant, as the statement that "the subsequent activation of the resulting Neu5Ac" described in column 4, lines 40-44 means production of CMP-NeuAc by synthetase or other enzymes (see, column 4, lines 45-58). That is, the description referred to by the Examiner merely discloses the reaction condition before or during the synthesis of CMP-NeuAc.

In contrast, the claimed method is *not* related to the synthesis of CMP-NeuAc, but directed to the purification of CMP-NeuAc after the synthesis. The description in column 4, lines 40-44 of Kittlemann et al. neither teaches nor suggests the purification of CMP-NeuAc. Kittlemann et al. discloses the purification process of CMP-NeuAc in column 5, lines 30-47, however, the process is *totally different* from the claimed method.

Applicants respectfully assert that a person having ordinary skill in the art would find no reason in the teachings of the cited references to modify or combine their teachings in order to arrive at the claimed invention, nor would he have any reasonable expectation of success in doing so.

Therefore, Applicants respectfully assert that the rejection is untenable as applied to the amended claims and should be withdrawn.

### **III. SUBSTANCE OF INTERVIEW**

Applicants thank the Examiner for the interview held June 8, 2011, regarding proposed arguments for overcoming the outstanding obviousness rejection. Applicants also thank the Examiner for forwarding the Interview Summary of June 15, 2011.

**CONCLUSION**

In view of the foregoing remarks, it is respectfully asserted that the present application is in condition for allowance and early notice to that effect is hereby requested. If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

Respectfully submitted,

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July 5, 2011